

SEQUENCE LISTING

<110> Case, Casey Christopher
 Liu, Qiang
 Rebar, Edward J.
 Sangamo Biosciences, Inc.

<120> Methods of Using Randomized Libraries of Zinc Finger
 Proteins for the Identification of Gene Function

<130> 019496-003210US

<140> US 09/731,558

<141> 2000-12-06

<150> US 09/456,100

<151> 1999-12-06

<160> 24

<170> PatentIn Ver. 2.1

<210> 1

<211> 25

<212> PRT

<213> Artificial Sequence

<220>

<221> MOD_RES

<222> (2)..(5)

<223> Xaa = any amino acid, Xaa at positions 4 and 5 may
 be present or absent

<220>

<221> MOD_RES

<222> (7)..(18)

<223> Xaa = any amino acid

<220>

<221> MOD_RES

<222> (20)..(24)

<223> Xaa = any amino acid, Xaa at positions 23 and 24
 may be present or absent

<220>

<223> Description of Artificial Sequence:exemplary motif
 for Cys-2His-2 class of zinc finger proteins

<400> 1

Cys Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 1 5 10 15

Xaa Xaa His Xaa Xaa Xaa Xaa Xaa His
 20 25

<210> 2

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:polypeptide
linker

<400> 2

Asp Gly Gly Gly Ser
1 5

<210> 3

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:flexible
polypeptide linker

<400> 3

Thr Gly Glu Lys Pro.
1 5

<210> 4

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:polypeptide
linker

<400> 4

Leu Arg Gln Lys Asp Gly Glu Arg Pro
1 5

<210> 5

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:polypeptide
linker

<400> 5

Gly Gly Arg Arg
1

<210> 6

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:polypeptide
linker

<400> 6
Gly Gly Gly Gly Ser
1 5

<210> 7
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:polypeptide
linker

<400> 7
Gly Gly Arg Arg Gly Gly Gly Ser
1 5

<210> 8
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:polypeptide
linker

<400> 8
Leu Arg Gln Arg Asp Gly Glu Arg Pro
1 5

<210> 9
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:polypeptide
linker

<400> 9
Leu Arg Gln Lys Asp Gly Gly Gly Ser Glu Arg Pro
1 5 10

<210> 10
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:polypeptide
linker

<400> 10
Leu Arg Gln Lys Asp Gly Gly Gly Ser Gly Gly Gly Ser Glu Arg Pro
1 5 10 15

<210> 11
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:6xHis tag

<400> 11
His His His His His His
1 5

<210> 12
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:SBS1
recognition helix

<400> 12
Arg Ser Asp Ala Leu Thr Arg
1 5

<210> 13
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:SBS2
recognition helix

<400> 13
Arg Ser Asp Asn Leu Ala Arg
1 5

<210> 14
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:SBS3
recognition helix

<400> 14
Arg Ser Asp His Leu Ser Arg
1 5

<210> 15
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:SBS4
recognition helix

<400> 15

Arg Ser Asp Glu Leu Thr Arg
1 5

<210> 16

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:SBS5
recognition helix

<400> 16

Gln Ser Gly Ser Leu Thr Arg
1 5

<210> 17

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:SBS6
recognition helix

<400> 17

Gln Ser Ser Asp Leu Thr Arg
1 5

<210> 18

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:SBS7
recognition helix

<400> 18

Glu Arg Gly Thr Leu Ala Arg
1 5

<210> 19

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:SBS8
recognition helix

<400> 19
Gln Ser Ser Asn Leu Ala Arg
1 5

<210> 20
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:SBS9
recognition helix

<400> 20
Asp Arg Ser Asn Leu Thr Arg
1 5

<210> 21
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:SBS10
recognition helix

<400> 21
Gln Ser Gly Asn Leu Ala Arg
1 5

<210> 22
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:SBS11
recognition helix

<400> 22
Asp Arg Ser His Leu Ala Arg
1 5

<210> 23
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:SBS12
recognition helix

<400> 23
Gln Ser Gly His Leu Gln Arg
1 5

<210> 24
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:DNA sequence
recognized by zinc finger protein SDS 4-10-9-10-2

<400> 24
gcggaagacg aagag